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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/580,532	05/26/2000	David Joseph Clinton	PMCS. 003US1	9629

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EXAMINER

QURESHI, AFSAR M

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 08/06/2004.

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/580,532

Applicant(s)

CLINTON ET AL.

Examiner

Afsar M Qureshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2000.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 14-17 and 25-27 is/are allowed.
6) ☒ Claim(s) 1-6, 8, 10-13, 18, 22-24 and 28 is/are rejected.
7) ☒ Claim(s) 7, 9 and 19-21 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-6, 8, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Pillar et al. (US 6,501,762).

Claims 1-6. Pillar discloses a scheduler, establishing a FIFO order for scheduling of data transmission to plurality of destinations performing weighted fair queuing (weighted scheduling of polling) (see col. 3, lines 27-40). Pillar further discloses an improvement to the round robin system including weighted burst round robin algorithm (claims 2 and 3) (col. 2, lines 44-65). Pillar further discloses assigning weight values to a common queue feeding cells that have reached the integer weight value for that connection (claims 4-6) (see col. 2, lines 27-33 and col. 4, lines 66 through col. 5, lines 1-10).

Claim 8. Pillar discloses number of cells 130, 132, 134, 136 being grouped in each connection 120-126 based on the relative weights (see col. 5, lines 1-51, figure 1).

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Claims 10 and 11. As already stated scheduling is done based upon the relative weight of connection and the number of cells that connection is attempting to transmit (see col. 5, lines 2-6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 12, 13 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pillar et al. (US 6,501,762) in view of Miyoshi et al. (US 6,002,668).

Claims 12, 13. As discussed, in the rejection of claim 1, SCQ 140 holds data in queues, and functionally can be considered equivalent to claimed queue controller. Transmitting data to FIFO and polling a scheduler an identification for destination with pending data is disclosed by Pillar (see col. 1, lines 33-44 and col. 3, lines 57-67).

Pillar does not specifically disclose WAN being the source of data. However, it will be obvious to one of ordinary skill in the art to be able to modify the invention in order to receive data from a source such as wide area network as disclosed by Miyoshi et al. (Miyoshi, hereinafter) (see figure 3). An obvious motivation, in receiving traffic from WAN, would have been to perform all traffic (ABR, VBR, CBR, etc.,) class services.

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Claim 28. A traffic management device (scheduler) and wide area network is already discussed in the rejection of claims 12, 13 above. The cited art does not specifically disclose 'loop port modems' for exchanging data with a plurality of subscribers. However, a modem is well known and can be implemented in the invention by Miyoshi since it is dealing with LAN and WAN having to transmit and receive data from various resources, therefore utilizing a modem is inherent.

3. Claims 18 and 22-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Pillar in view of Shimony et al. (US 5,898,669).

Claim 18. As already discussed above, Pillar discloses scheduler that reads polling parameters, such as weight, bandwidth, etc., and selects ports based on those parameters (relative weights) and SCQ 140 (queue controller) transmits data to responding ports (see figure 1).

Pillar is silent about 'master sequence number that increments when a port selection cycle is completed'. However, Shimony discloses sequence numbering that can be utilized when a port selection cycle is completed (see figure 3). Sequence numbering is known and old

Claims 22-24 Pillar discloses FIFO to provide weighted per connection queuing, order for scheduling data flow (holding data to be transmitted with successful polls. (see col. 3, lines 24-40).

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Therefore it would have been obvious to one of skill in the art, at the time of invention, to be able to modify scheduler (110) by including sequence numbering to control data transmission.

Allowable Subject Matter

4. Claims 14-17 and 25-27 allowed over prior art of record.
5. Claims 7, 9, 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Fan et al. ((US 6,408,005) disclose dynamic rate controller (DRC) scheduler for scheduling cells in ATM switch.

Hamalainen et al. (US 5,729,541) disclose a method to transmitting encoded packet according to transmission needs.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afsar M Qureshi whose telephone number is (703) 308 8542. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305 4378. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AFSAR QURESHI
PATENT EXAMINER

August 1, 2004